REMARKS

Applicants respectfully request reconsideration of the application, as amended. Pursuant to 37 C.F.R. 1.121(c)(1)(ii), a marked-up version of the amended claims showing all changes made is attached hereto. Support for amended claims 1-3 can be found in the specification on pg. 6 lines 7 - 10, pg. 12, lines 3-5, and pg. 13, lines 7-13, pg. 14, lines 15-18. Support for amended claim 4 can be found on pg. 6, lines 15-18.

Applicant wishes to direct the Examiner's attention to an error on the Office Action Summary. The Office Action Summary incorrectly lists Weimer et al. as the Applicant. The correct Applicant for this application is Ishii et al. A copy of the Declaration signed by all inventors in the present application (and previously submitted to the PTO) is enclosed herewith for your reference.

RESTRICTION REQUIREMENT

The Examiner requested restriction to one of the following inventions:

I. Claims 1-4, drawn to a manufacturing method for an optical fiber grating

II. Claim 5, drawn to an optical fiber grating.

III. Claims 6-7, drawn to a manufacturing apparatus for an optical fiber grating.

During a telephone interview with the Examiner on October 7, 2002, Applicant elected to prosecute claims 1-4 in the present application. Applicant affirms its election of claims 1-4, and reserves the right to file divisional applications for claims 5-7.

REJECTIONS UNDER 35 U.S.C. 103(a)

The Examiner rejected claim 1 under 35 U.S.C. §103(a) as being unpatentable over Shima et al. in view of Kohnke et al. Specifically, the Examiner argued that the cited references teach the method disclosed in claim 1.

In response, Applicant amended claim 1 to include an additional step, which recites: "carrying out at least once heat trimming processing that uniformly heats the grating part

as a whole at a predetermined temperature and time." Support for this amendment can be found in the specification on pg. 6 lines 7 - 10, and pg. 12, lines 3-5.

Because heat trimming is not disclosed in either Shima et al or Kohnke et al, Applicant contends that this amendment obviates the Examiner's rejection with respect to claim 1. Accordingly, Applicant respectfully requests withdrawal of this ground of rejection.

The Examiner rejected claims 2-4 under 35 U.S.C. §103(a) as being obvious over Shima et al in view of Kohnke et al, and further in view of Chen et al. Specifically, the Examiner states, it would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out heat trimming processing in order to adjust the optical properties. (*See* Office Action, p. 6).

Applicants respectfully disagree. The Examiner states, "Chen et al. discloses a method of heat trimming processing by heating the grating in order to adjust the optical properties" (*See* Office Action, p. 6). This statement, however, is incorrect. Chen et al. discloses a method of trimming *non-optical characteristics,* such as optical path length and fiber tension, but does not disclose the use of heat trimming processing to control *optical properties*, such as refractive index. (*See* Chen et al., Abstract). Indeed, none of the references cited by the Examiner disclose a method of controlling optical properties through heat processing. Accordingly, claims 2-4 are patentable under 35 U.S.C. 103(a).

The Examiner further agues that claim 4 is unpatentable under 35 U.S.C. 103(a) over Shima et al and Kohnke, which disclose the device recited in claim 1, and Chen et al., which disclose a process for monitoring (*See* Office Action, p. 6).

Applicants respectfully disagree. As stated above, the method disclosed in amended claim 1 is not disclosed in Shima or Kohnke when read either alone or in combination. Accordingly, claim 4, which depends on claim 1, is not obvious under 35 U.S.C. 103(a).

In view of the above, Applicants respectfully request withdrawal of this ground of rejection.

ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess to our Deposit Account No. 03-1240.

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date below as first class mail with sufficient postage in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231

DATE: January 24, 2003

NAME: Daniel Basov
SIGNATURE: Daniel Basov

Respectfully submitted,

By Daniel Basov

Daniel Basov
Registration No. 42,303
Chadbourne & Parke LLP
30 Rockefeller Plaza
New York, New York 10112
(212) 408-2324

Version With Markings To Show Changes Made

1. (Amended) A manufacturing method for an optical fiber grating comprising the steps of:

forming a grating part having a periodic refractive index distribution by irradiating an optical fiber along the longitudinal direction by ultraviolet light at a predetermined period and carrying out dehydrogenation when necessary;

carrying out at least [one time] once uniform ultraviolet irradiation processing that irradiates the grating part as a whole at a predetermined temperature and time; [and]

carrying out at least once heat trimming processing that uniformly heats the grating part as a whole at a predetermined temperature and time; and

carrying out heat aging processing that heats the grating part to a uniform temperature for a predetermined period in order to stabilize the optical properties of the grating part.

2. A manufacturing method for an optical fiber grating according to claim 1 wherein, before or after said uniform ultraviolet irradiation processing, heat trimming processing is carried out at least once [time] by uniformly heating the grating part as a whole in order to adjust the optical properties.

3. (Amended) A manufacturing method for an optical fiber grating according to claim 1, wherein said uniform ultraviolet irradiation processing and said heat trimming processing are repeatedly carried out an arbitrary number of times and in an arbitrary sequence until predetermined optical properties of the optical fiber grating are obtained.

4. (Amended) A manufacturing method for an optical fiber grating according to claim 1, wherein said uniform ultraviolet irradiation processing and said heat trimming processing are optionally carried out while monitoring the transmitted light, and/or the reflected light of the optical fiber grating, and the reference light.